Complete Summary

GUIDELINE TITLE

Management of persistent asthma.

BIBLIOGRAPHIC SOURCE(S)

Michigan Quality Improvement Consortium. Management of persistent asthma. Southfield (MI): Michigan Quality Improvement Consortium; 2002 Aug. 1 p.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Persistent asthma

GUIDELINE CATEGORY

Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Pulmonary Medicine

INTENDED USERS

Advanced Practice Nurses
Health Plans
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To achieve significant, measurable improvements in the management of persistent asthma through the development and implementation of common evidence-based clinical practice guidelines
- To design concise guidelines that are focused on key management components of persistent asthma to improve outcomes

TARGET POPULATION

Adults and children older than 5 years of age with persistent asthma

Note: For patients 5 years of age and younger, refer to the specific pediatric recommendations in the 2002 update of the National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma.

INTERVENTIONS AND PRACTICES CONSIDERED

1. Peak flow meter
2. Inhaled corticosteroids
3. Long acting $beta_2$agonist
4. Short-acting, inhaled $beta_2$agonist
5. Oral steroids
6. Follow-up outpatient visit
7. Written action plan for self-management
8. Immunization (e.g., influenza, other age appropriate immunizations)
9. Patient and family education
10. Alternative therapies including inhaled corticosteroids with either leukotriene modifier or theophylline (for inhaled corticosteroids with $beta_2$agonists), and alternative therapies for mild persistent asthma including cromolyn, leukotriene modifier, nedocromil, OR sustained release theophylline to serum concentration of 5 to 15 micrograms/mL.

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The Michigan Quality Improvement Consortium (MQIC) project leader conducts a search of current literature in support of the guideline topic. Computer database searches are used to identify published studies and existing protocols and/or clinical practice guidelines on the selected topic. A database such as MEDLINE and two to three other databases are used.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence for the Most Significant Recommendation

A. Randomized controlled trials
B. Controlled trials, no randomization
C. Observational studies
D. Opinion of expert panel

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Using the health plan guideline summaries and information obtained from the literature search, the Michigan Quality Improvement Consortium (MQIC) director and/or project leader prepare a draft guideline for review by the MQIC Medical Directors.

The draft guideline and health plan guideline summaries are distributed to the MQIC Medical Directors for review and discussion at their next committee meeting.

The review/revision cycle may be conducted over several meetings before consensus is reached. Each version of the draft guideline is distributed to the MQIC Medical Directors, Measurement, and Implementation committee members for review and comments. All feedback received is distributed to the entire membership.

Once the MQIC Medical Directors achieve consensus on the draft guideline, it is considered approved for external distribution to practitioners with review and comments requested.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Once the Michigan Quality Improvement Consortium (MQIC) Medical Directors achieve consensus on the draft guideline, it is considered approved for external distribution to practitioners with review and comments requested.

The MQIC director also forwards the approved guideline draft to presidents of the appropriate state medical specialty societies for their input. All feedback received from external reviews is presented for discussion at the next MQIC Medical Directors Committee meeting. In addition, physicians are invited to attend the committee meeting to present their comments.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The level of evidence grades (A-D) are provided for the most significant recommendations and are defined at the end of the "Major Recommendations" field.

<u>Treatment/Management</u>

Use of Peak Flow Meters

- Prescribe peak flow meter [B].
- Frequency: At least once

Regular use of Controller Medications

- Prescribe daily use of inhaled corticosteroids [A].
- Add long acting inhaled beta$_2$agonist[1,2] if persistent symptoms despite maximum inhaled steroid dose [A].

- Avoid the regular scheduled use of short-acting beta$_2$agonists for long-term control of asthma.
- Frequency: Reassess at least annually

[1]Inhaled corticosteroids with beta$_2$agonists (preferred therapy). Alternative treatment: inhaled corticosteroids with either leukotriene modifier or theophylline.

[2]Alternative therapies for mild persistent asthma include cromolyn, leukotriene modifier, nedocromil, OR sustained release theophylline to serum concentration of 5 to 15 micrograms/mL.

Management of Acute Exacerbations

- Prescribe short-acting, inhaled beta$_2$agonist[3] [B].
- Prescribe oral steroids for acute exacerbations that fail to respond adequately[3] [B].
- Frequency: During acute episode

[3]Prescribe these medications for the patient to have at home to use in the event of an acute exacerbation.

Medical Follow-up

- Recommend and schedule if possible, follow-up outpatient visit at discharge from hospital or emergency department [D].
- Frequency: Visit within 7 days of discharge

Periodic Assessment - Education, Monitoring, and Management

- Provide written action plan for self-management.
- Recommend influenza immunization and ensure age-appropriate immunization status (e.g., pneumococcal vaccine).
- Educate patient/family regarding:
    - Use of peak flow meter
    - Use of inhaler/spacer
    - Use of medication
    - Recognition/treatment of symptoms and when to seek medical attention
    - Identification and avoidance of specific triggers
    - Smoking cessation/secondhand smoke avoidance [C]
- Frequency: Reassess at least annually

Definitions:

Levels of Evidence for the Most Significant Recommendation

A. Randomized controlled trials
B. Controlled trials, no randomization
C. Observational studies
D. Opinion of expert panel

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is provided for the most significant recommendations (See "Major Recommendations" field).

This guideline is based on the 2002 update of the National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma (www.nhlbi.nih.gov).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Through a collaborative approach to developing and implementing common clinical practice guidelines and performance measures for persistent asthma, Michigan health plans will achieve consistent delivery of evidence-based services and better health outcomes. This approach also will augment the practice environment for physicians by reducing the administrative burdens imposed by compliance with diverse health plan guidelines and associated requirements.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This guideline lists core management steps. Individual patient considerations and advances in medical science may supersede or modify these recommendations.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

When consensus is reached on a final version of the guideline, a statewide mailing of the approved guideline is completed. The guideline is distributed to physicians in the following medical specialties:

- Family Practice
- General Practice
- Internal Medicine

- Other Specialists for which the guideline is applicable (e.g., endocrinologists, allergists, pediatricians, cardiologists)

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Michigan Quality Improvement Consortium. Management of persistent asthma. Southfield (MI): Michigan Quality Improvement Consortium; 2002 Aug. 1 p.

ADAPTATION

This guideline is based on the 2002 update of the National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma (www.nhlbi.nih.gov).

DATE RELEASED

2002 Aug

GUIDELINE DEVELOPER(S)

Michigan Quality Improvement Consortium

SOURCE(S) OF FUNDING

Michigan Quality Improvement Consortium

GUIDELINE COMMITTEE

Michigan Quality Improvement Consortium Medical Director's Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Physician representatives from participating Michigan Quality Improvement Consortium health plans, Michigan State Medical Society, Michigan Osteopathic

Association, Michigan Association of Health Plans, Michigan Department of Community Health and Michigan Peer Review Organization

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Michigan Quality Improvement Consortium Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Sample asthma action plan. Bethesda (MD): National Asthma Education and Prevention Program, National Heart Lung and Blood Institute; 1 p.

Electronic copies: Available in Portable Document Format (PDF) from the Michigan Quality Improvement Consortium Web site.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on April 14, 2004. The information was verified by the guideline developer on July 27, 2004.

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